

## Patent Claims

- 5        1. Method for controlling the temperature of feed air supplied to a cabin area of a passenger aircraft (10), whereby a reading is taken for the ambient temperature in the cabin area by means of a temperature sensor system (24), and the temperature of the feed air is controlled dependent upon a deviation of the ambient temperature measurement value in relation to an ambient temperature optimum value,
- 10      characterised in that the ambient temperature measurement value is deduced from a number of individual temperature values taken from different points within the cabin area.
- 15      2. Method in accordance with claim 1,  
characterised in that at least some of the individual temperature values, in particular all of the individual temperature values, are taken for points at a certain distance from one another in the cabin area along the length of the aircraft (10).
- 20      3. Method in accordance with claim 1 or 2,  
characterised in that the ambient temperature measurement value is obtained by means of a calculation using at least some of the individual temperature values.
- 25      4. Method in accordance with any of the previous claims,  
characterised in that each individual temperature value is compared with at least one reference value and only those individual temperature values which comply with pre-specified conditions in relation to the reference value are taken into consideration when determining the ambient temperature measurement value.
- 30      5. Method in accordance with any of the previous claims,  
characterised in that the cabin (18) of the aircraft (10) is sub-divided into several cabin zones lengthwise which are each supplied with feed air from their own supply line 12, that for at least some of the cabin zones an ambient temperature measurement value is deduced from a number of individual temperature values for different points within the cabin zone in question, and that the temperature of the feed air supplied to a cabin zone is controlled, dependent upon a deviation of the ambient temperature measurement value for this cabin zone in relation to an ambient temperature optimum value.

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6. Passenger aircraft, the cabin (18) of which is sub-divided into several cabin zones, each supplied with feed air from its own supply line (12), characterised by a temperature sensor system (24), by means of which, for at least some of the cabin zones, a number of individual temperature values are established for different points in the cabin zone in question, and by an electronic control unit associated with the temperature sensor system (26), which is provided so as to deduce an ambient temperature measurement value from the individual temperature values for a cabin zone, and to control the temperature of the feed air supplied to this cabin zone, dependent upon a deviation of the ambient temperature measurement value for this cabin zone in relation to an ambient temperature optimum value.

7. Aircraft in accordance with claim 6,  
characterised in that the temperature sensor system (24) used to establish the  
individual temperature values for a cabin zone includes a number of discreet  
temperature sensors (24) positioned in this cabin zone, each of which provides an  
individual temperature value.